



Steel Fabrication Shop Management Course: Shop Drawings, Nesting, Coating and Dispatch



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Introduction:

Steel fabrication shop management, covering shop drawings, nesting, coating and dispatch, is a 5-day course for fabrication shop, production planning and quality control staff in structural and miscellaneous steelwork, ending with a Shop Production and Erection Dispatch Plan. Shops that release unchecked drawings, cut plate without nesting discipline, bottleneck at fit-up or ship pieces out of erection order lose steel to scrap, crane hours to waiting and margin to rework. Nominees already run bays, schedules or inspections and learn through inspection walkthroughs of shop flow, travellers and coating records. CoreConcept Training Center delivers this steel fabrication shop management course.

Course Objectives:

- Map piece flow, bay capacity and man-hours per tonne across the shop from stockyard to dispatch bay
- Control shop drawing submittals, detailing revisions, material take-off and mill certificate traceability before cutting starts
- Raise plate and section yield through nesting, cutting schedules and CNC programme sequencing
- Balance fit-up and welding bay loading against station capacity and weld metre demand
- Manage blast cleaning, painting and galvanising quality through an inspection and test plan with hold and witness points
- Build tonnage-based estimates and an erection-sequenced dispatch plan with shipping lots and loading lists

Target Audience:

- Staff responsible for running structural or miscellaneous steel fabrication shops and their output per tonne
 - Staff responsible for production planning, bay loading and delivery schedules in fabrication shops
 - Staff responsible for quality control, inspection and test plans and fabrication records
 - Staff responsible for detailing coordination, drawing release and material procurement for steel packages
 - Staff responsible for estimating fabrication packages and coordinating dispatch with erection crews
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Course Outline:

Day 1: Fabrication Shop Landscape and Current-State Flow

- Structural Versus Miscellaneous Steel Work Package Differences
- Shop Layout Map From Stockyard to Dispatch Bay
- Value Stream Map of Piece Flow Through Bays
- Tonnage Output and Man-Hours per Tonne Baseline
- Bottleneck Walk Using a Bay-by-Bay Observation Sheet

Day 2: Detailing, Shop Drawings and Material Planning

- Shop Drawing Submittal, Review and Approval Register
- Detailing Model Revision Control and Drawing Release Gates
- Material Take-Off Lists by Section, Plate and Grade
- Mill Certificate and Heat Number Traceability Records
- Execution Class and Factory Production Control Requirements

Day 3: Cutting, Nesting, Fit-Up and Welding Throughput

- True-Shape Nesting Versus Block Nesting Yield Comparison
- CNC Beam Drill Line and Bandsaw Cutting Schedules
- Plasma and Oxy-Fuel Plate Table Programme Sequencing
- Fit-Up Fixtures, Tack Sequences and Dimensional Check Sheets
- Welding Bay Loading by Weld Metre and Station Capacity

Day 4: Surface Treatment, Inspection Plans and Shop Risk

- Abrasive Blast Cleaning Grade and Surface Profile Checks
- Paint System Application Records and Dry Film Thickness Readings
- Hot-Dip Galvanising Venting, Draining and Distortion Precautions
- Inspection and Test Plan Hold and Witness Points
- Non-Conformance Reports, Rework Loops and Scrap Cost Tracking

Day 5: Inspection Walkthrough and the Shop Production and Erection Dispatch Plan

- Tonnage-Based Estimate Build for a Case Fabrication Package
 - Erection Sequence Breakdown Into Shipping Lots and Piece Marks
 - Case Shop Walkthrough of Nesting, Fit-Up and Coating Records
 - Loading Lists, Bundle Tagging and Truck Dispatch Schedule
 - Shop Production and Erection Dispatch Plan Panel Review
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Skills You Will Gain:

- Fabrication Flow Mapping
- Shop Drawing Release Control
- Nesting Yield Optimisation
- Bay Capacity Loading
- Coating Quality Assurance
- Inspection and Test Planning
- Tonnage-Based Estimating
- Erection-Sequenced Dispatch Planning

Why Attend This Course:

- Deliver a Shop Production and Erection Dispatch Plan to the fabrication director and project controls team for adoption
- Decide which nesting strategy, bay loading and coating route each package takes, using yield and capacity evidence
- Avoid scrap overruns, coating rework and site cranes standing idle while out-of-sequence pieces sit in the yard
- Coach planners, bay leads and inspectors using the observation sheets, nesting comparisons and inspection plan templates

Conclusion:

Back at work, the participant hands the Shop Production and Erection Dispatch Plan to the fabrication director and the project controls team. They use it to approve drawing release gates, nesting and cutting priorities, bay loading, the coating route and the shipping lot order agreed with the erection contractor before the next package enters the shop. After the first package is shipped, the unit should compare actual man-hours per tonne, plate yield, coating non-conformances and on-sequence deliveries with the plan, then adjust estimating norms and bay capacity figures.

Frequently Asked Questions FAQ:

What should participants know before a steel fabrication shop management course?

Participants should already work in a fabrication shop, planning office or quality team and be able to read general arrangement and shop drawings. No design calculation or welding qualification background is needed; shop data is worked through in case exercises.

How does a steel fabrication shop management course differ from a structural steel design course?

This course manages how approved steelwork is detailed, cut, assembled, coated, inspected and shipped. Design courses verify member and joint resistance, and welding technology courses cover processes, metallurgy and weld examination, which this course treats only as shop capacity and records.

Why does nesting matter in steel fabrication shop management?

Plate and section offcuts are bought at full steel price. Nesting parts by true shape, grouping by grade and thickness and reusing remnants raises yield, cuts scrap and shortens cutting time, which lowers cost per tonne.

What do participants take back from the steel fabrication shop management course?

Each participant takes back a Shop Production and Erection Dispatch Plan for a case fabrication shop, with a flow map, drawing release gates, nesting and bay loading rules, coating and inspection controls, a tonnage estimate and a shipping lot schedule adaptable to their own shop.